

INSTALLATION INSTRUCTIONS

FCB Pinnacle 2 Flavor Emerson Units

THERMOSTAT RESET UPGRADE KIT P/N 629088480

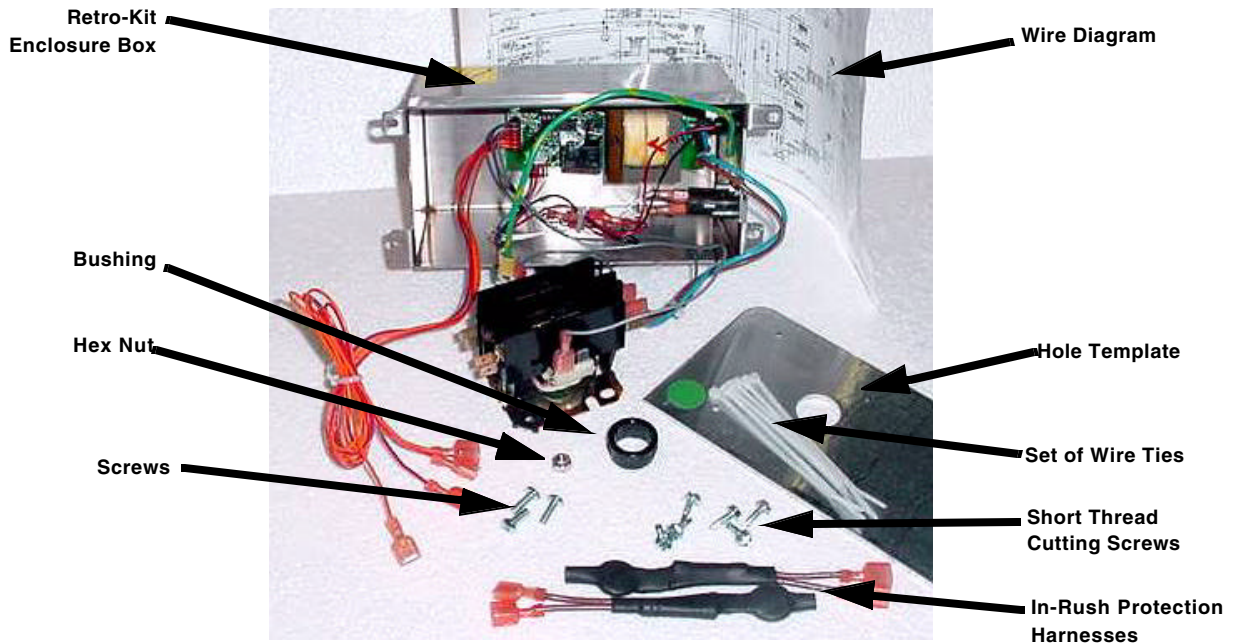
IMPORTANT: This procedure is intended for use by a Qualified Service Technician.

IMPORTANT: This kit is intended to be a direct replacement of the existing safety circuit. If the unit does not have a reset box on the back, call IMI Cornelius Service at 800-238-3600.

NOTE: Open the Cornelius web site www.cornelius.com, search for 629088480INS, and print the instructions off in color.

Parts List

Item	Description	Qty
1	Retro-Kit Enclosure Box (with wiring inside)	1
2	Hole Template	1
3	Short Thread-Cutting Screws (if needed)	6
4	Set of wire ties	1
5	Screws, 1 spare	3
6	Wiring Diagram – 620920907	1
7	7/8" Bushing (if needed)	1
8	Hex Nut	1
9	Harness, In-Rush Protection	2
10	Label, Hot Gas Error (not shown)	1
11	Brass Screws and S.S. Lock-washers (not shown)	4



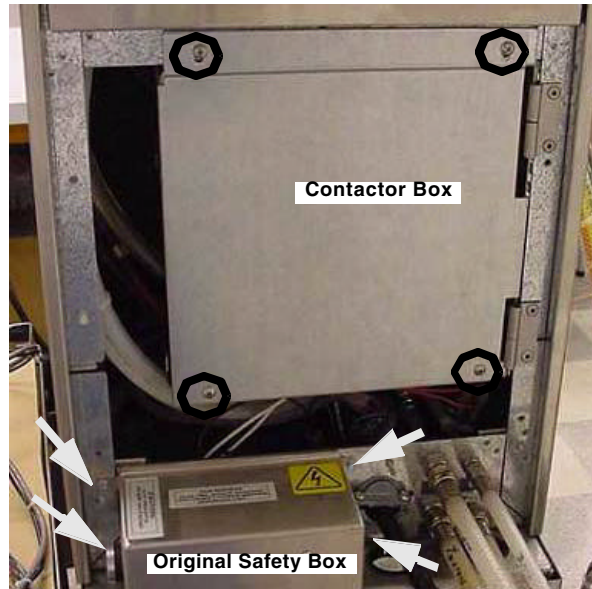
Tool List

Multi-Use Screwdriver
 1/4" Nut Driver
 Multi-meter

Wire Stripper/Crimper
 Needle Nose Pliers
 Set of Mixed Terminals (red male and female AMP fastons, fully insulated)

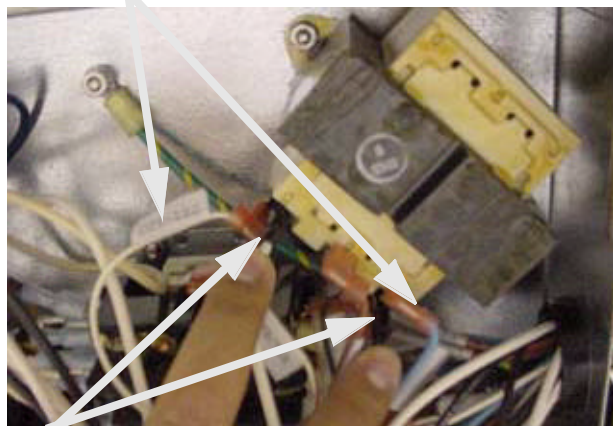
Installation Instructions

1. Pull Pinnacle away from wall. DISCONNECT POWER FROM THE UNIT. Remove lower back panel.
2. Remove the 4 screws holding contactor box cover (bottom rear of unit). The box will now pivot on hinges. Also remove the 4 screws holding the original safety circuit box on the back of the lower frame.



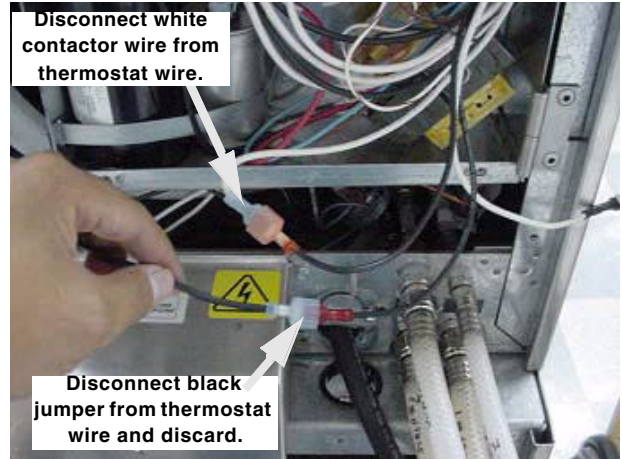
3. Remove leads LD1 and LD2 from transformer 1, located in contactor box. These are the piggybacked connections. Remove the labeled terminals from the piggybacks and replace in their original positions.

Place TX1-LD1 and TX1-LD2 back on transformers.
Use same location from placement.

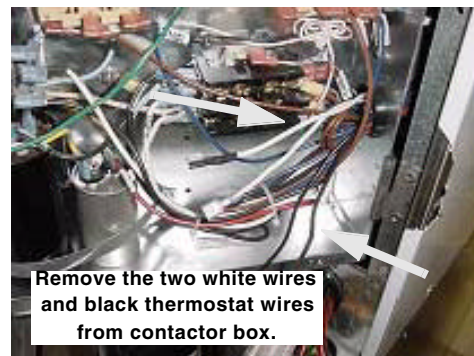


Remove piggybacked wires and leads from transformer.

- Remove thermostat wires from their connections. Feed the wires out of the contactor box. Discard the black jumper wire.



- Feed the white wires that originate from the safety circuit box out of the contactor box.



- Pull out safety circuit box and remove the ground screw. Disconnect the main power and contactor harness leads for the contactor.
- Feed the white wires out through the hole and remove the box.

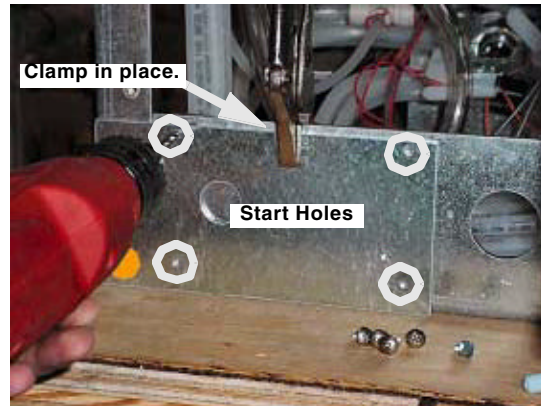
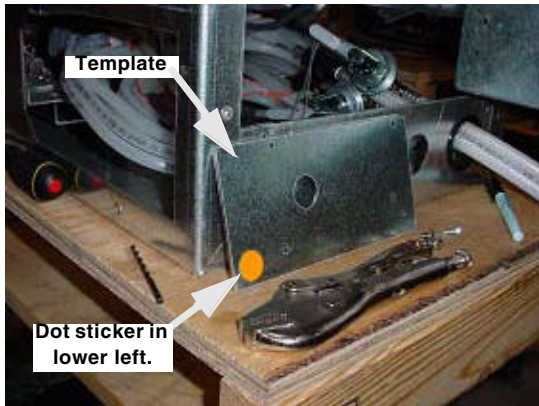
NOTE: Note the mounting hole locations on the original box. If the mounting holes are on the side of the box, proceed to step 14. If the mounting locations are on the top and bottom, remove all wires and bushing and proceed to the next step to drill new mounting holes.

Box with mounting holes on top and bottom. Drill new.

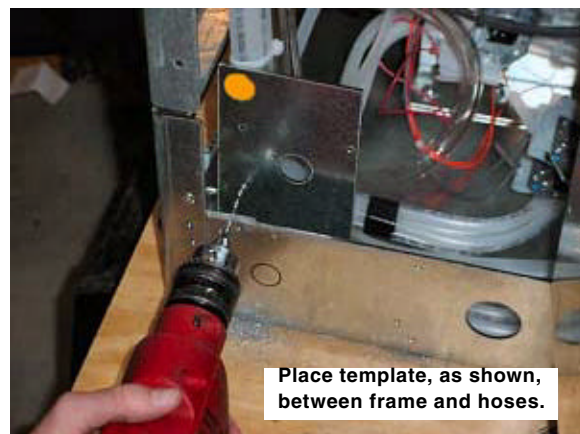
Box with mounting holes on sides. Use existing.



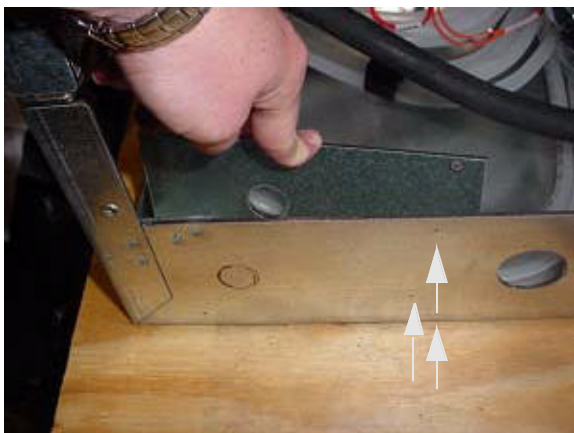
- Place hole template at lower left of back of frame. The dot sticker should be at the lower left of template. **Line up edge of hole template to edge of frame, as shown, and clamp in place.**



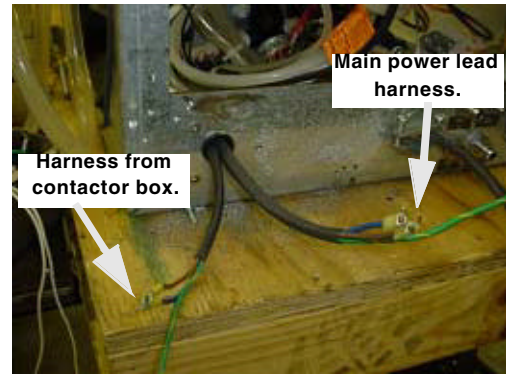
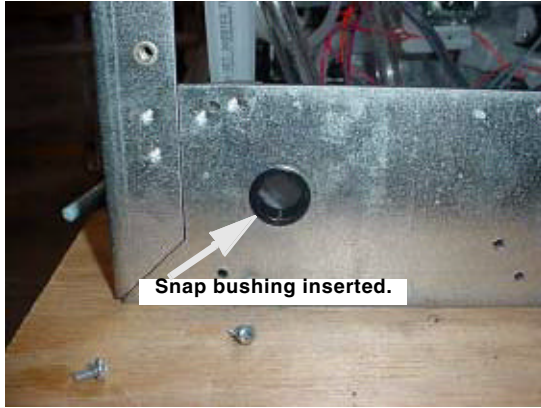
- Start 4 smaller holes with the drill using the 1/8" bit through template and into frame. DO NOT DRILL THE ENTIRE HOLE, ONLY START HOLE TO MARK LOCATION!** If preferred, use a center punch to mark hole locations.
- Unclamp the template and place just inside frame, as shown. The template **MUST BE** between the frame and hoses to prevent hose puncture. Be sure that large hole in template is in position well above the holes being drilled



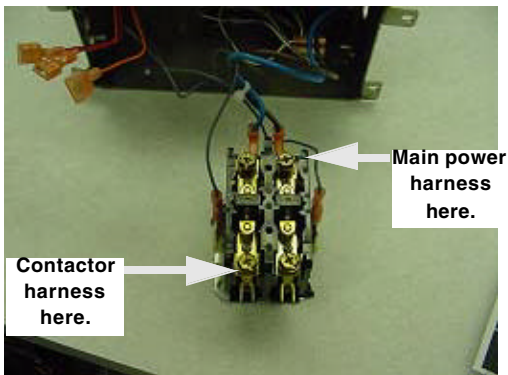
- Drill the two small holes near the left side. Move the template, as shown, when finished drilling making sure it is between the frame and hoses, with the large template hole away from the right side holes. Drill the 2 smaller holes on the right.



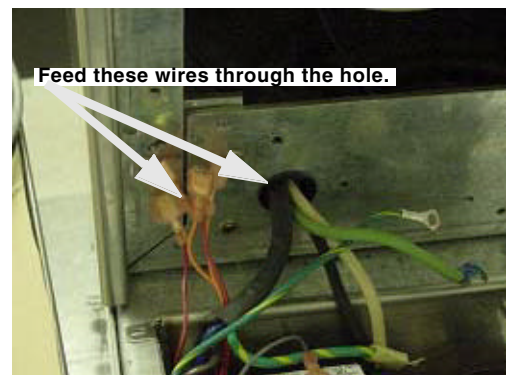
- File down any burrs on all 4 holes, carefully clean up all metal shavings.
- Place Snap Bushing in the 7/8" hole. Feed the main power and contactor harnesses through the hole.



14. Remove contactor from box and connect main power and contactor harnesses, as shown. **IMPORTANT – Main power MUST be on same side as flag terminals already attached to contactor (see photo).** Remount contactor in box.



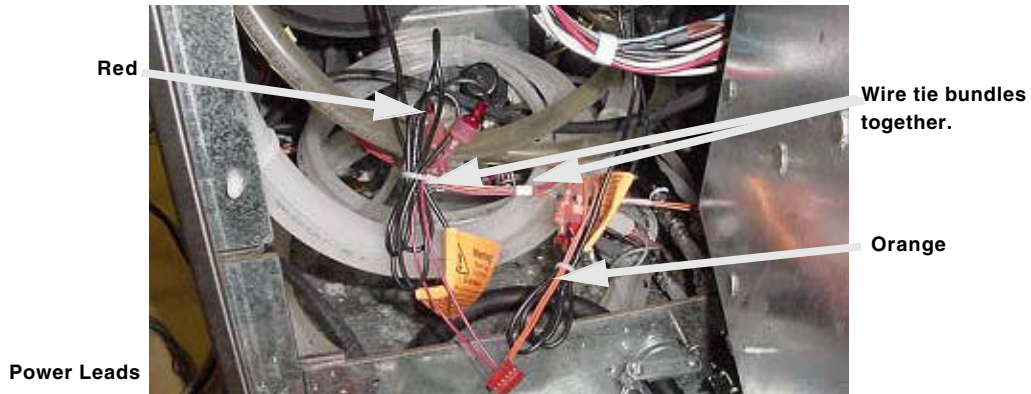
15. Feed the remaining 4 wires (2 red, 2 orange) through hole.



16. Disconnect terminals bridging the two thermostats (see photo). Remove wire tie, if present.



17. Take the wires from the safety circuit and connect them to the thermostats.
IMPORTANT: Make sure that you connect the two red wires to one thermostat and the orange wires to the other thermostat. Zip tie the bundles together.



18. Change out the screws in the back of the thermostat with the supplied brass and stainless steel lockwashers.

NOTE: Only remove one screw at a time. Do not remove both screws at the same time or the thermostat can fall and be damaged.

19. Using hand tools remove one screw.



20. Place the stainless steel lock-washer over the brass screw and thread it in (a “screw starter” screwdriver makes this much easier).

NOTE:

- Make sure both screws are in place and secure.
- Do not use power tools to drive screws.
- Use caution not to overtighten the screw.



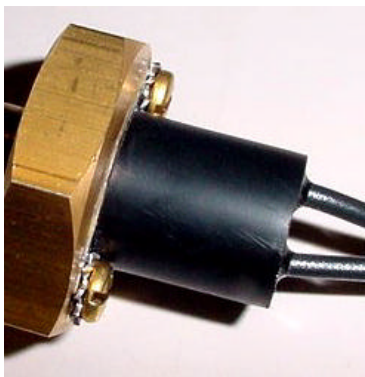
21. Insure screw is flush and sealed against lock washer, as shown.
 22. Repeat procedure for second screw.



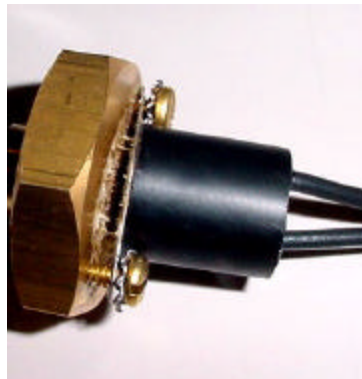
23. Repeat steps 18-20 for all barrels.

If the existing screws do not come out or they break during this change, call IMI Cornelius Service at 800-238-3600.

24. After screw replacements, insure thermostat is flush against brass retaining nut, by grasping the body of the thermostat with your finger and gently trying to wiggle it. No movement should be detected. If movement is detected, tighten screws and recheck.



Correct



Incorrect



Check

WARNING: If thermostat is loose, it will not correctly detect an over temperature condition. This could allow product to overheat without being detected.

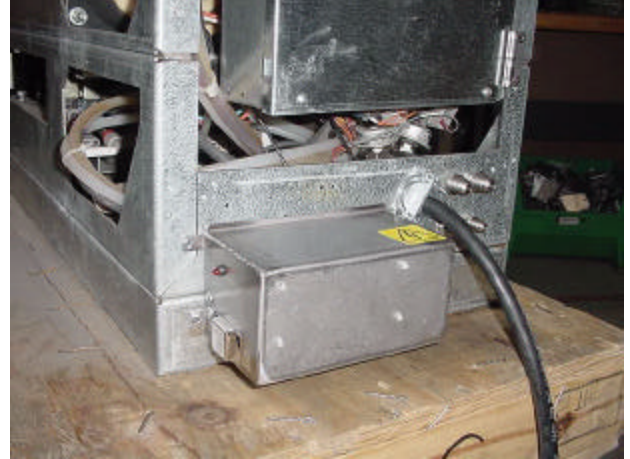
25. Set three ground wires (1 from contactor box, 1 from main power, and 1 from safety box) in place and tighten screw (see photo).



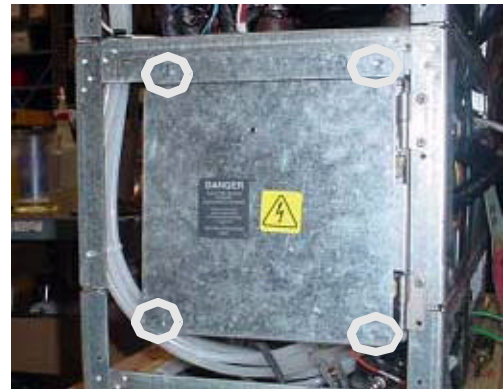
26. Before connecting power check the following:
 - A. Verify that all connections are placed properly per the instructions.
 - B. Verify that all connections are firmly attached.
 - C. Verify that the ground connection does not touch a terminal on the contactor in the safety circuit enclosure.
 - D. Verify that incoming power L1 and L2 are on the side of the contactor with the existing wires.
 - E. Verify that the unit power leads T1 and T2 are on the side of the contactor without the existing wires.
27. After verifying that the unit is wired correctly, connect power to unit and verify. If the unit does not power up and the red LED is illuminated, call IMI Cornelius Service at 800-238-3600. If the unit powers up normally, disconnect power and complete the install.
28. Feed remaining extra wire back through the hole.



29. Make sure all wires are in the safety circuit box, hold box in place against the frame, and drive 4 short thread-cutting screws (included in kit) through safety circuit box into frame.



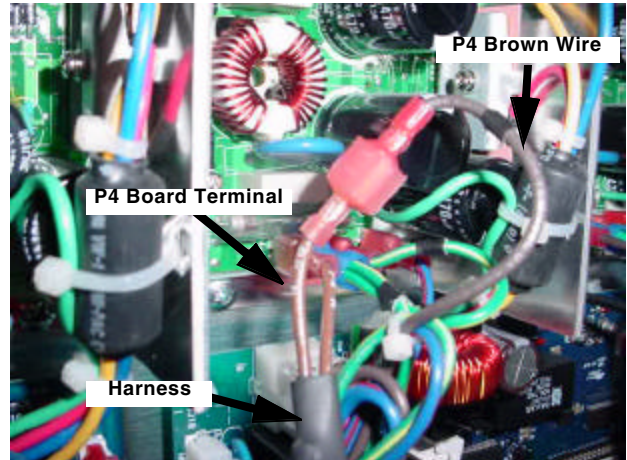
30. Swing Contactor Box “closed” and place cover over box. Drive the 4 screws that were removed to hold cover and box in place on unit.



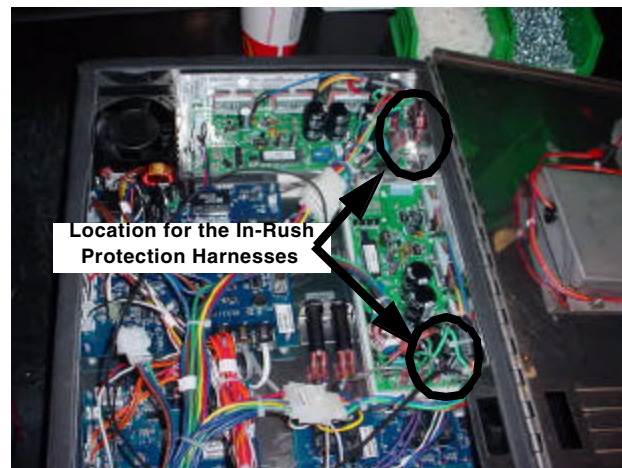
31. Replace lower back panel of unit. Move unit back into place for operation. Open the front control box to add the in-rush protection harnesses.



32. Pull the Brown wire labeled "P4" from its location on the Emerson Inverter Board



33. Place the female terminal of the In-Rush Protection harness on the terminal that you just removed the brown wire from. **MAKE SURE THIS IS THE BOARD TERMINAL LABELED "P4".**



34. Mate the male terminal of the In-Rush Protection Harness with the Brown wire "P4" terminal that you pulled from the board.
35. Position the In-Rush Protection Harness into the control box so that it does not contact the control box or door when closed. Zip tie to the main harness as needed.
36. Repeat steps 25 - 28 on each inverter board on the unit (1 board per barrel).
37. Close front control box.
38. Attach new wiring diagram directly over the existing one. Place Hot Gas Error Warning label directly next to the display panel on the front of the unit.



39. Reconnect power to the unit. Installation is complete and unit is ready for normal operation.